

CLAIMS

What Is Claimed Is:

- 1 1. A method for the modification of a layer of a tissue comprising the steps of:
2 applying to a section of the tissue a substance having a high absorption of at least
3 one frequency band of electromagnetic radiation
4 illuminating the covered section of the targeted tissue with electromagnetic
5 radiation of said at least one frequency band of electromagnetic radiation, said radiation
6 energy is thereby absorbed by the high absorption substance covering the target tissue
7 surface and is thereby converted to thermal energy sufficient to bring about irreversible
8 modification in the skin properties.
- 1 2. The method as in claim 1 wherein said high absorption substance is a suspension
2 containing high absorbing particles of a dimension larger than 50 microns.
- 1 3. The method as in claim 1 wherein said high absorption substance is a suspension
2 containing high absorbing particles of a dimension larger than 30 microns
- 1 4. The method as in claim 1 wherein said high absorption substance is a suspension
2 containing high absorbing particles of a dimension larger than 0.1 microns
- 1 5. The method as in claim 1 wherein said high absorption substance is a thin film
2 containing high absorbing particles
- 1 6. The process as in claim 5 wherein said high absorption substance is deposited in a
2 thin film containing high absorbing particles of density which assures that at least 60% of
3 the light energy is intercepted and absorbed by the particles.
- 1 7. The process as in claim 5 wherein said high absorption substance is deposited in a
2 thin film containing high absorbing particles of density which assures that at least 40% of
3 the light energy is intercepted and absorbed by the particles.
- 1 8. The process as in claim 5 wherein said high absorption substance is deposited in a
2 thin film containing high absorbing particles of density which assures that at least 20% of
3 the light energy is intercepted and absorbed by the particles.
- 1 9. The process as in claim 1 wherein said high absorption substance is deposited in a
2 thin film containing high absorbing particles of density corresponding to the rate of
3 energy deposition per unit area so that the energy deposited in the skin is sufficient for
4 the removal of at no more than 70% of the epidermis and the energy deposited in the skin

5 allows permanent modification of the skin to a depth of no more than 100 micrometer
6 below said depth of tissue removal.

1 10. The method of claim 1 where said high absorption substance is a paper containing
2 highly absorbing particles.

1 11. The method of claim 1 where said high absorption substance is made of agar
2 containing highly absorbing particles

1 12. The method of claim 1 where said high absorption substance is a mixture
2 containing highly absorbing particles.

1 13. The method of claim 1 where said high absorption substance is a layer of thermal
2 insulator containing highly absorbing particles.

1 14. The metho of claim 1 where said high absorption substance is a layer of thermal
2 conductor containing highly absorbing particles

1 15. The method of claim 1 where said high absorption substance is a metallic layer
2 containing highly absorbing particles.

1 16. The method of claim 1 wherein said high absorption substance is applied to a film
2 of material on the side facing the energy source and not to the side which is in contact
3 with the skin

1 17. The method of claim 1 wherein said high absorption substance is applied to a film
2 of material on the side facing the energy source and not to the side which is in contact
3 with the skin, and the film is made of thin layer allowing transmittal of at least some
4 thermal energy to the target material

1 18. The method of claim 1 wherein said high absorption substance is applied to a film
2 of material on the side facing the energy source and not to the side which is in contact
3 with the target material, and, The film is made of thermally conducting material

1 19. The method of claim 1 wherein said high absorption substance is mixed with
2 grains of conducting material to form a film of thermally conducting – optically
3 absorbing mix.

1 20. The method as in claim 5 wherein said high absorption substance is deposited in a
2 thin film containing high absorbing particles of density which assures that at least 80% of
3 the light energy is intercepted and absorbed by the particles.